



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG
(SEE ADDENDUM)

REVISION: 00
DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**
(FORMERLY MSDS0062)

SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: LUG

GENERAL USE: CONDUCTOR TERMINATION

PRODUCT DESCRIPTION: COPPER LUG

GENERIC INGREDIENTS: COPPER W/TIN

24HR EMERGENCY TELEPHONE NUMBERS: CHEMTREC: (703) 527-3887 / 800-424-9300

FOR PRODUCT INFORMATION: Celestra: +86.20.3471.7744

SECTION 2 HAZARDOUS INGREDIENT SECTION

OSHA HAZARDOUS INGREDIENTS

| HAZARDOUS COMPONENTS | CAS NO. | % BY WT | OSHA PEL | ACGIH TLV | OTHER LIMITS OF EXPOSURE |
|----------------------|-----------|-------------|---------------------|---------------------|---------------------------|
| COPPER | 7440-50-8 | 96.44~98.61 | 1 mg/M ³ | 1 mg/M ³ | STEL: 2 mg/M ³ |

SECTION 3 HEALTH INFORMATION & PROTECTION

| | | | | | | |
|---------------------------|--------------------|----|-------------------------|----|------------------------|----|
| CARCINOGENICITY: | NTP? | NO | IARC MONOGRAPHS? | NO | OSHA REGULATED? | NO |
| ROUTE(S) OF ENTRY: | INHALATION? | NO | SKIN? | NO | INGESTION? | NO |

HEALTH HAZARDS(ACUTE AND CHRONIC):

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: NOT REGULATED.

SKIN CONTACT: NOT REGULATED.

INGESTION: NOT REGULATED.

INHALATION: NOT REGULATED.

FIRST AID MEASURES:

EYE CONTACT: NOT REGULATED.

SKIN CONTACT: NOT REGULATED.

INGESTION: NOT REGULATED.



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG
(SEE ADDENDUM)

REVISION: 00
DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**
(FORMERLY MSDS0062)

INHALATION: NOT REGULATED.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

WORKPLACE EXPOSURE CONTROLS:

PERSONAL PROTECTION:

RESPIRATORY PROTECTION: NONE NEEDED.

VENTILATION:

HAND PROTECTION: PROTECTIVE GLOVES FOR HYPERSENSITIVE PERSONS.

EYE PROTECTIVE: GLASSES, IF APPLIED TO MOVING PARTS IN MOTION.

BODY PROTECTION: OVERALLS.

WORK/HYGIENIC:

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: NOT REGULATED.

EXPLOSIVE PROPERTIES: NOT REGULATED.

FLAMMABLE LIMITS: NOT FLAMMABLE AT AMBIENT TEMPERATURE

GENERAL HAZARD:

FIRE FIGHTING: FOAM, DRY POWDER, CARBON, DIOXIDE, SAND, EARTH AND WATER MIST.

SECTION 5 SPILL CONTROL MEASURES

SPILL RESPONSE: NOT REGULATED.

PRODUCT DISPOSAL: DO NOT INCINERATE. CONTACT WASTE DISPOSAL AUTHORITY FOR ADVICE.

CONTAINER DISPOSAL: PAILS WITHOUT LINER SEE "PRODUCT DISPOSAL". PAILS WITH PLASTIC LINER PAIL CAN ONLY BE DISPOSED OF VIA STANDARD WASTE DISPOSAL SERVICES, RECYCLED OR REUSED. LINER - SEE "PRODUCT DISPOSAL".

SECTION 6 HANDLING & STORAGE



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG
(SEE ADDENDUM)

REVISION: 00
DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**
(FORMERLY MSDS0062)

GENERAL: NO SPECIAL HANDLING PRECAUTIONS NECESSARY.

STORAGE: DO NOT STORE ATELEVATED TEMPERATURES.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: GRAINY SEMISOLID PASTE

COLOR: COPPER

DENSITY(g/cm³): 1.66

ODOR: SHARP

pH: NEUTRAL

PARTITION COEFFICENT (LOG POW): N/A

SOLUBILITY IN WATER: Nil

VAPOR PRESSURE, (kPa): <0.01

AUTOIGNITION

TEMPERATURE °F(°C): >680(360)

BOILING POINT °F(°C): >700(371)

EVAPORATION RATE,

BUTYL ACETATE=1: <0.01

MELTING POINT: N/A

PERCENT VOLATILE: NIL

SPECIFIC GRAVITY (H2O=1):

VAPOR DENSITY (AIR=1): >5

SECTION 8 REACTIVITY DATA

GENERAL:

CHEMICAL STABILITY: CHEMICAL STABLE UNDER NORMAL CONDITIONS. NO PHOTOREACTIVE AGENTS.

INCOMPATIBLE MATERIALS AND CONDITONS TO AVOID: POWERFUL SOURCES OF IGNITION. STRONG INORGANIC AND ORGANIC ACIDS AND OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS: BURNING GENERATES SMOKE, AIRBORNE SOOT, HYDROCARBONS AND OXIDES OF CARBON. RESIDUE MAINLY COMPRISED OF SOOT AND METAL OXIDES AND MINERAL CARBIDES.

HAZARDOUS POLYMERIZATION:

SECTION 9 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION(DOT): NON-HAZARDOUS



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG
(SEE ADDENDUM)

REVISION: 00
DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**
(FORMERLY MSDS0062)

HAZARD CLASS:

| | | | |
|-------------|------------|-------------|-------------------|
| UN#: | PG: | ERG: | HAZ LABEL: |
|-------------|------------|-------------|-------------------|

I.A.T.A. CLASSIFICATION: NOT REGULATED

HAZARD CLASS:

| | | | |
|-------------|------------|-------------|-------------------|
| UN#: | PG: | ERG: | HAZ LABEL: |
|-------------|------------|-------------|-------------------|

U.S. FEDERAL REGULATIONS

TSCA: ALL COMPONENTS ARE LISTED.

CERCLA: NON-HAZARDOUS

RCRA HAZARD CLASS: NON-HAZARDOUS

SARA TITLE III INFORMATION

SECTION 302: NONE

SECTION 311/312: NONE

SECTION 313: THIS PRODUCT CONTAINS COPPER

NEW JERSEY RIGHT-TO-KNOW INFORMATION: N/A

CALIFORNIA PROPOSITION 65 INFORMATION: NONE.

INTERNATIONAL:

WHMIS(CANADA): NOT REGULATED

SECTION 10 NOTES

TOXICOLOGICAL INFO: LC-50: 1.98G/LT (MYSIDOPSIS BAHU), BASED ON ASSESSMENT FROM RELATED PRODUCTS.

HAZARD RATING SYSTEMS:

HIMS

NFPA

KEY



MATERIAL SAFETY DATA SHEET

Celestra, 76, Huancun Road, Zhongcun Street, Panyu Dist, Guangzhou

Celestra CATALOG NUMBER: LUG

(SEE ADDENDUM)

REVISION: 00

DATA PREPARED: 23 Aug 2025

PRODUCT DESCRIPTION: COPPER LUG

DOCUMENT NUMBER: **MSDS-0062**

(FORMERLY MSDS0062)

| | | | |
|--------------|---|---|------------|
| HEALTH | 1 | 1 | 4=SEVERE |
| FLAMMABILITY | 1 | 1 | 3=SERIOUS |
| FLAMMABILITY | 1 | 1 | 2=MODERATE |
| | | | 1=SLIGHT |
| | | | 0=MININAL |

REVISION SUMMARY:

SUPERSEDES ISSUE DATE

ABBREVIATION:

N/E=NOT ESTABLISHED

N/A=NOT AVAILABLE

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND ACCURATE TO THE BEST OF CELESTRA KNOWLEDGE. THE INFORMATION RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USERS'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE.

ADDENDUM

Catalog Number

Description

DA4512A-251

Copper Two-Hole Lug-90°, Standard Barrel